

Application No.: 09/381,061
Attorney Docket No.: FUK-59
Amendment Dated: December 5, 2005
Reply for Office Action Dated: 3 June 2005

REMARKS

Claims 1 and 3-9 are pending in the application.

Applicant has amended Claims 1, 5, 7, and 8. The claim amendments add no new matter and are fully supported by the original disclosure.

For example, at Figs. 3B-C, it is evident that the auxiliary fine suppression pores 310e lie at a radially outermost location relative to both the centering pores 310b-c and rotation pores 310d.

The amendments further provide that the centering pores are disposed radially outward of a periphery of the substrate body. (The auxiliary fine suppression pores are then disposed radially outward of such centering pores.) Support for the amendments pertaining to the centering pores is found in the specification as follows:

Further with the features as described above, the fine pores for centering are provided on a surface of the floating unit at positions uniformly and appropriately away in the outer direction from an external periphery of the substrate body ... (Page 5, lines 8-11.) (Emphasis added.)

The Examiner has objected to the drawings.

In response, Applicant has submitted herewith replacement drawing sheets for Figs. 6 and 9, as amended in the manner indicated by the Examiner.

Applicant has amended the specification in the manner indicated by the Examiner.

Claims 1 and 4-8 stand rejected under 35 USC §102(b) as being anticipated by or, in the alternative, under 35 USC §103(a) as being obvious over Hiura.

In the rejection, the Examiner states that the Hiura flotation pores 5 serve as flotation pores, centering pores, and auxiliary fine suppression pores. The Examiner states that the

Application No.: 09/381,061
Attorney Docket No.: FUK-59
Amendment Dated: December 5, 2005
Reply for Office Action Dated: 3 June 2005

centering ability of flotation pores 5 results inherently from their inclination towards the discharge port 3.

However, in regard to amended Claim 1, flotation pores 5 can no longer be said to satisfy the centering pores as now recited. As amended, Claim 1 recites that the "plurality of fine centering pores being disposed radially outward of a periphery of said substrate body." This feature is not found in flotation pores 5. Instead, to provide the required flotation operation, flotation pores 5 must be located radially inward (and not outward) of the periphery of the substrate body. This requirement is shown in Fig. 1 of Hiura, where flotation pores 5 are deliberately placed inward of the periphery of wafer 2 to facilitate the expressly desired flotation operation.

Regarding the placement of flotation nozzles 5, Hiura states that the nozzles are "provided ... on a concentric circle located between said circle that passes through the positioning gas spray nozzles and said gas discharge port." (Page 3, lines 7-10.) However, as illustrated in Fig. 1, this concentric circle must also lie radially inward of the periphery of the wafer, and not just inward of the positioning nozzles, if the flotation function is to be achieved.

In Hiura, then, only positioning nozzles 4 remain to satisfy the centering pores, according to the rejection. As shown, Hiura does not teach or suggest any nozzles disposed radially outward of positioning nozzles 4. Accordingly, Hiura neither teaches nor suggests the Claim 1 limitation directed to "all of said auxiliary fine suppression pores being located radially further away from a center of the floating unit surface than said plurality of fine centering pores." Since flotation pores 5 no longer satisfy the centering pores as now defined, the Examiner's analysis at

Application No.: 09/381,061
Attorney Docket No.: FUK-59
Amendment Dated: December 5, 2005
Reply for Office Action Dated: 3 June 2005

best only provides that positioning pores 4 and the purported auxiliary fine suppression pores (i.e., a subgroup of positioning pores 4) lie at the same radial location.

In view of the foregoing, Applicant believes that Claims 1 and 4-8 are patentable over Hiura and respectfully requests that this rejection be withdrawn.

Claims 7-9 stand rejected under 35 USC §103(a) as being unpatentable over Granneman in view of Hiura, Kisa and Foster.

For the same reasons as set forth above concerning the rejection of Claims 1 and 4-8 over Hiura, Applicant believes that Claims 7-9 are patentable over the cited references and respectfully requests that this rejection be withdrawn.

Claim 9 stands rejected under 35 USC §103(a) as being unpatentable over Granneman in view of Hiura, Kisa and Foster, and further in view of Nishitani and White.

For the same reasons as set forth above concerning the rejection of Claims 1 and 4-8 over Hiura, Applicant believes that Claim 9 is patentable over the cited references and respectfully requests that this rejection be withdrawn.

Claims 7-9 stand rejected under 35 USC §102(e) as being anticipated by or, in the alternative, under 35 USC §103(a) as being obvious over Aschner or Maruyama.

Claims 7 and 8 have been amended to recite, inter alia, centering pores.

For the same reasons as set forth above concerning the rejection of Claims 1 and 4-8 over Hiura, Applicant believes that Claims 7-9 are patentable over the cited references and respectfully requests that this rejection be withdrawn.

Application No.: 09/381,061
Attorney Docket No.: FUK-59
Amendment Dated: December 5, 2005
Reply for Office Action Dated: 3 June 2005


The Examiner has objected to Claim 3 as being dependent upon a rejected base claim, but has indicated that it would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant believes that Claim 3 is patentable as it depends from patentably distinguishable base Claim 1 (as amended). Accordingly, Applicant respectfully requests that this objection be withdrawn.

Applicant believes that the application is now in condition for allowance and respectfully requests favorable action in accordance therewith.

If the Examiner has any questions or comments that would advance prosecution of this case, the Examiner is invited to call the undersigned at 260/484-4526.

Respectfully Submitted,



Randall J. Knuth
Registration No. 34,644

RJK

Enclosures: Amendments to the Claims
(5 Sheets)
Amendments to the Specification
(1 sheet)
Amendments to the Drawings
(1 sheet)
Replacement Drawing Sheets (2)
Explanatory Cover Sheet - Page 1
Petition for Extension of Time
Check No. 8845 (\$1020)
Return Postcard

RANDALL J. KNUTH, P.C.
4921 DeSoto Drive
Fort Wayne, IN 46815-4631
Telephone (260) 484-4526
Facsimile (260) 484-0185
Email: randy.knuth@rjkpc.com

Customer No.: 022855



Application No.: 09/381,061
Attorney Docket No.: FUK-59
Amendment Dated: December 5, 2005
Reply for Office Action Dated: 3 June 2005

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450, on: December 5, 2005.

A handwritten signature in cursive script, appearing to read "Randall J. Knuth".

Randall J. Knuth, Registration No. 34,644

December 5, 2005
Date